

REMARKS

The Examiner stated that during a telephone conversation with Gregory Clements on 02/10/2004, a provisional election was made with traverse to prosecute the invention of the Group I, claims 1-11. The Examiner requests an affirmation of this election in the reply to the May 11, 2004, Office Action.

- I. Claims 1-11, drawn to an adjustable shroud, are classified in class 425, subclass 72.2.
- II. Claims 12-17, drawn to a melt spinning process, are classified in class 264, subclass 211.14.

Applicant affirms the conversation with Examiner Tadesse on 02/10/2004, and the election to prosecute the claims of Group I in the instant case.

Applicant retains the right to file one or more divisional applications, or to take other appropriate actions to protect the application lying within the Group II claims. To this end, claims 12-17 are withdrawn.

Claims 1-2 and 4 stand rejected under 35 U.S.C. 102(b) as being anticipated by Estep et al. (US 6,101,698). Estep et al., disclose in Figures 3-5, column 6, lines 23-38 and column 8, lines 14-17, an adjustable shroud for use in melt spinning having means to secure it to close proximity to a spinneret. Furthermore, the Examiner states that Estep et al. disclose a quadrilateral shroud (Figures 3-4). With respect to claim 4, Estep et al. disclose a shroud in the form of nesting walls.

Applicant has amended claim 1 in accordance with the specification, page 3 line 7, as shown in Figures 2-4, that the adjustable shroud is positioned beneath the spinneret. Currently amended claim 1 now differentiates the applicants' invention from Estep, wherein the shroud (skirt 26), as the Examiner proposes is the counterpart to the adjustable shroud of the instant application. Estep et al. disclose, in Figures 3-5, a laterally adjustable skirt 26 with seal channel 32. As is evident from Figure 3, 4, and 5, the position of the adjustable skirt 26 is fixed relative to the spinneret 21, and the fixed position of the adjustable skirt 26 is above the spinneret at all times. The seal channel 32 is only below the spinneret when the spinpack 20 has been shut down and lifted up in the portal 30 to an intermediate or transitional position (column 5, lines 15-18). As the spinneret is removed from the portal 30, then the slide gates 35 and 38 are positioned in Figure 5. The function of the retractable skirt 26, as stated by Estep et al., is to allow for quicker replacement of a fouled spinpack 20 (column 4, lines 19-21). Applicant's invention, on the other hand, provides a shroud that can be rapidly changed both in length, distance from the spinneret and operating temperature. Quoting from the summary of the invention, page 2 last paragraph. "The length of the shroud may be adjusted without disruption in production." As disclosed in the specification, the operating temperature and the length of the shroud can have a significant effect on the final properties of the fiber produced by the spinning process. Estep et al. does not teach the utility of a shroud, wherein the shroud operating temperatures and length can be adjusted to optimize properties of synthetic yarns. Applicant submits that the currently amended claim 1 now overcomes the Examiner's 102 rejection, and should be allowed.

Claim 2 and claim 4 are dependent claims, depending on claim 1, and have all the limitations of currently amended claim 1, and should be allowed.

Claims 5 and 11 stand rejected under 35 U.S.C. 103(a) as being patentable over Estep et al., or Stofan (US 3,858,386) as applied to claim 1 above. Further, in view of Estep, Estep discloses a manually adjustable shroud (skirt) but lacks teaching a pneumatic,

hydraulic, or mechanical means to suggest a shroud. However, the Examiner reasons that Estep does teach a lifting crane to adjust the length of the skirt, and it would have been obvious that at the time of the invention was made to replace the non-mechanical shroud length adjusting means with a mechanical means, pneumatic or hydraulic. The Examiner further rejects claim 6 for similar reasons.

Applicant's claim 5 is a dependent claim depending on claim 1, and claims a means to adjust length of said shroud using pneumatic, hydraulic, or mechanical arm screws. The Examiner has stated that while Estep do not teach pneumatic, hydraulic, or mechanical means to address the shroud, he does teach using a lifting crane and the Examiner has stated that the use of a lifting crane would be equivalent to the use of mechanical means like pneumatic, hydraulic, or mechanical long screws. As the specification states on page 5, last line, the mechanism to position and reposition the adjustable shroud 30 should be precise – within 1-2 mm. A lifting crane is imprecise, in that it is used to lift items through much greater distances than millimeters. Estep's invention is an apparatus for a quick-change spinneret, and is not designed for fine-tuning the annealment of fibers exiting a spinneret. As functions are different, so are the needs for the equipment to perform those functions and a lifting crane is not suitable for fine-tuning the exact position of a shroud beneath a spinneret. Stofan in US Pat. 3,858,386, teaches the utility of cooling the fibers using an air supply capable of delivering air at various flow rates and at various temperatures. Stofan does not teach the use of an adjustable length shroud, nor the means to adjust the length of said shroud.

Claim 11 is a dependent claim depending on claim 7. Claim 7 is currently amended to include the limitation that the shroud is positioned beneath the spinneret. Support for the limitation is given in Figures 3-5, and on page 3, line 7 of the specification. The arguments given for claim 5 are also applicable to claim 11.

Dependent claim 6, depending on claim 1 (currently amended) discloses a heating element. Stofan does not teach a mechanically adjustable shroud, having a means to secure it in close proximity to a spinneret and a means to adjust the length of the shroud. Estep does not teach an adjustable shroud positioned beneath the spinneret. Estep and Stofan do not share similar elements. Claim 6 is not anticipated by their combination. Applicant requests that the Examiner withdraw his rejections of claims 5, 11, and 6.

Claims 7-8 and 10 stand rejected under U.S.C. 35 103 as being unpatentable over Stofan in view of Estep.

As previously mentioned, applicant has amended claim 7 to include the limitation that the adjustable shroud is positioned beneath the spinneret. The arguments previously presented for claim 1 and dependent claims 2, 4, and 6 are similarly applicable for claims 7-8 and 10.

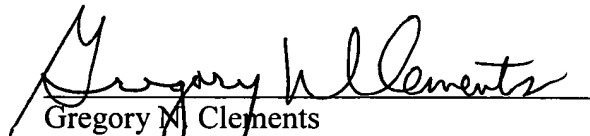
The Examiner has stated that claims 3 and 9 are objected to as being dependent upon a rejected base claim, but would be allowed if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. Thanks are given to the Examiner for the indication of allowance, but in light of the amendment to independent claim 1 and independent claim 7, applicant avers that claims 3 and 9 are now allowable in light of the amendments.

The Examiner has stated that the prior art of record does not disclose or suggest an adjustable shroud or combination of an adjustable shroud in a spinneret comprising among others, a quadrilateral adjustable shroud, wherein the two walls form a quadrilateral shroud with two folding walls. Further to that, applicant submits that the prior art does not teach an adjustable shroud positioned beneath the spinneret, where said shroud has a means to secure it close to a spinneret, and a means to adjust the length of the shroud. The cited prior art

teaches stationary shrouds (Stofan) with air cooling, and shrouds having quick access to the spinneret (Estep), but does not teach a shroud that can be minutely adjusted on the fly to change the annealing properties of the yarn during the spinning process. Claims 12-17 are withdrawn.

In light of the amendments to the claims and the remarks herein, applicant requests that the Examiner reconsider his rejections, and allow all of the currently pending claims, claims 1-11.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gregory M. Clements", is written over a horizontal line.

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